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Helping Police Officers Cope with Stress: A Cognitive-Behavioral Approach

Irwin G. Sarason, James H. Johnson, John P. Berberich and Judith M. Siegel
Department of Psychology
University of Washington
Seattle, Washington 98195

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Technical Report

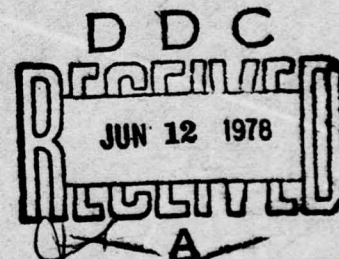
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Police Academy trainees participated in a stress management program which focused on developing skills for coping with anxiety and anger. Stress management training took place in six two-hour sessions and included instruction and practice in the self-monitoring of reactions to stressful situations, muscular relaxation, and the development of adaptive self-statements. Self-report measures of anxiety and anger were obtained before and after the stress management program. In addition, self and observer ratings of trainees		

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performance in stressful simulated police activities were utilized as post-treatment dependent measures. In comparison to a control group of trainees, the performance of the treatment group was rated, by academy personnel, as superior in several of the simulated police activities. The results of the present study suggest that stress management with law enforcement officers may be most effective when the program focuses on the specific situations which are likely to be encountered by trainees. Limitations of the present program are examined and suggestions for future efforts with law enforcement personnel are discussed.

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Helping Police Officers to Cope with Stress: A Cognitive-Behavioral Approach

Police work is highly stressful because it involves personal dangers, challenges, and their anticipation. The need to help police officers deal as effectively as possible with stress is heightened by growing evidence that the police are at high risk for a variety of psychological and physical conditions, including cardiac disorders, death at an early age, suicide, and depression. In addition, numerous situations arise in which serious personal injury or death can result if these situations are handled carelessly or inappropriately (Jacobi, 1975; Kroes, 1974; Richard and Fell, 1975).

Even if these sorts of catastrophic events do not occur, stresses and strains related to the maintenance of high levels of vigilance and arousal occur continually and exert an impact on police officers and the citizens with whom they interact. Given the stressful nature of policework and the possible negative outcomes resulting from the continued exposure to work-related stressors, it is important to develop means of reducing stress among this group. If police officers could be aided in dealing effectively with stress, not only would they benefit, but so would the many citizens in the community with whom they come into contact. A number of publications have addressed themselves to the general role of stress in police work (See Kroes and Hurrell, 1975), yet there is relatively little empirical information available concerning the effectiveness of stress management programs for police officers. The available information focuses on how police officers may be trained to deal with certain specific types of challenges, such as dealing with interpersonal conflicts and family disputes (Schreiber, and Andrews, 1975; Zacker and Bard, 1973; Smith, 1973), but not with the problem of stress per se. Various training programs have attempted to increase police officers

sensitivity to others and to master self control skills (Danish and Brodsky, 1970; Sacker, 1972). In spite of the increased attention given to the role of stress and the fact that a variety of police training programs have been developed to enhance the performance of police officers, there are virtually no published reports of well controlled studies of the effects of comprehensive stress management programs with this population. One interesting approach to a very important stressor, anger provocation, has been recently described by Novaco (1977). Further work on this problem is needed.

The present report describes a stress management program specifically designed for police officers in training and provides data concerning its effectiveness. Our dependent measures included a variety of behavioral and self-report indices. We were particularly interested in the relationship between participation in a comprehensive stress management program and performance under highly realistic conditions. It seems reasonable that the police officer who can confidently and effectively handle problematic situations might be less prone to the bodily and psychological breakdowns which follow prolonged exposure to stress. We regard stress as relative; that is, the impact of various types of situations on individuals depends on how they are appraised and the degree to which persons can function in them with reasonable ease and success.

Development of the experimental program was based on several assumptions. First, it was assumed that stressors confronting police officers fall into two broad categories: those that elicit fear and anxiety and those that do not. This assumption is supported by the literature on job related stress among police officers and information we obtained in interviews with and observations of the activities of Seattle Police Department officers. As noted earlier, police officers are at times confronted with situations in which personal

injury or death are possible outcomes. Such situations are likely to elicit fear and anxiety. Other situations which do not result in fear and anxiety may also be highly stressful. Consider the situation in which a citizen refuses to give assistance when needed or where an officer is the recipient of insulting and derogatory verbal attacks. While situations such as these may not arouse anxiety, they are likely to result in considerable anger and hostility. It was thought appropriate, therefore, to consider both anxiety eliciting and anger provoking situations as stressors as it is likely that both result in increased physiological arousal and perhaps differ only in terms of the cognitions involved. Finally, high levels of anxiety and anger frequently interfere with performance.

A second assumption underlying the program pertained to factors involved in coping with stressful events. Although it is widely acknowledged that physiological responses are elicited by stressful stimuli, several authors have also emphasized the important role of cognitive factors. Lazarus (1968) has pointed out that the degree to which a particular situation elicits an emotional response may depend in large part on the individual's appraisal of the situation. Sarason (1975) has noted that individuals under stress tend to become self-preoccupied, often displaying a variety of self-defeating and interfering thoughts. He noted that engaging in such cognitive activities may preclude attending to task-relevant cues and performance is likely to be less than optimal. Further, engaging in self-defeating thought is likely to increase an already high anxiety level. Meichenbaum (1975) has also emphasized the role of self statements as regulators of overt behavior. He has demonstrated that it is possible to alter maladaptive behavior by teaching individuals to emit more adaptive cognitive responses which decrease arousal level and improve performance.

As one's reaction to, and perhaps experiencing of, potentially stressful situations seems to involve both physiological and cognitive processes, it was felt that an effective stress management program should involve procedures designed to deal with both of these components. The program to be described in the following section was designed to deal with both the cognitive and physiological factors related to the emotions of anxiety and anger. While this program is unique in many respects, we have relied heavily on the self-instructional approaches to training suggested by Meichenbaum (1973; 1975) and Novaco (1977) for dealing with anxiety and anger.

Method

Subjects

The subjects were 18 Police Academy trainees enrolled in the Seattle Police Academy program as part of the Spring 1977 class. The sample was composed of 10 males and 8 females who ranged in age from 22 to 34 years (mean age, 25.9). Members of the class had been selected from a large group of applicants to the Police Academy based on the results of rigorous physical and psychological screening procedures. Thus, they represented a select group who were felt to be especially suited for police work.

Procedure

The eighteen Police Academy trainees were assigned at random to either the stress management program or to a control condition with the restriction that there be an approximately equal number of males and females in each group, and that the number of minority members in each group be approximately equal. Those subjects assigned to the treatment group received the stress management program. Subjects in the control condition attended the same number of meetings as did the treatment group but instead of receiving the stress management program received a short course in abnormal psychology. The contents of

the latter was similar to that used in previous Police Academy classes. The instructors had considerable experience teaching abnormal psychology classes to police trainees. Pre and post assessments for the treatment and control groups were the same and within the same time frame.

Nature of the Stress Management Program

The stress management program involved a total of six two-hour sessions. All sessions were conducted in a group setting. The program was conducted by an experienced clinical psychologist who served as the psychologist for the Seattle Police Department. Also present at each session was a veteran police officer of the Seattle Police Department who was familiar with the stressors encountered by police officers. He served as co-leader.

A description of the contents of the six sessions is presented below. All sessions were conducted within a lecture-discussion format supplemented by video tape presentation and role playing sequences in some instances. With the exception of the first session, all sessions were preceded by a brief quiz over the contents of the preceding session and homework assignments.

Session One:

In this session, participants were given an introduction to, and overview of, the stress management program. They were told that the goals of program were to help them learn how stress affects individuals both physically and psychologically, and how one can learn skills in controlling the effects of stress.

A major focus of this session was to help participants become aware of the nature of the stressors which confront police officers. Stressors of two types were emphasized: situations which elicit fear and anxiety and those which arouse anger. Examples of each type of stressor were given and discussed. After a consideration of these stressors, attention was given to the physical

and psychological effects of stress on law enforcement officers. The high incidence of high blood pressure, ulcers, heart attacks, arthritis, and other physical disorders among police officers was discussed, as was the high rate of suicide, alcoholism, and divorce. It was noted that the effects of stress on the individual may be either immediate (having a detrimental effect on work performance) or more long, term resulting in problems such as those suggested above. Participants also viewed a film "The Nature of Stress" (Harper and Row, 1976) which illustrated many of the points made earlier in the session. The session concluded with a brief survey of methods for coping with stress and it was explained that these methods would be considered further in the sessions to follow. At the end of the session the trainees were given a handout entitled "Introduction to the Stress Management Training Program for Police Officers," which reviewed much of the material covered in this session.

Session Two

Session two began with an overview of the material previously presented, again emphasizing the stressful nature of police work and the need to develop stress management skills. Much of this session was directed toward making participants more aware of the role of cognitive factors in coping with stressful situations. It was pointed out that individuals confronted with stressful situations tend to become self-preoccupied and emit a variety of interfering, self-defeating thoughts which may be detrimental to performance. It was explained that such interfering thoughts may have a variety of undesirable effects. First it was noted that certain self statements (e.g. "I'm not sure I can handle this situation," "Oh no, not another one of these, they're always a mess") may, in and of themselves, result in increased anxiety which can interfere with performance. Secondly, it was noted that thoughts have an important relationship to behavior and that maladaptive self statements can lead to maladaptive responding. Finally, it was pointed out that to the

extent that individuals are self preoccupied and think inappropriate thoughts, they may not attend to all aspects of the situation with which they are confronted. Failure to attend to relevant cues (e.g. a knife within reach of a suspect) may result in a failure to respond appropriately and could have fatal consequences in certain situations. Detailed examples of each of the above were given and were discussed by the participants.

The role of maladaptive and adaptive self statements were also illustrated via a video tape depicting a police officer making a traffic stop. This scene showed an officer who had just stopped a college student in a sports car for speeding. The student, who was portrayed by an actor especially trained for this video unit, behaved in a sarcastic manner, argued with the officer and made a variety of statements which could provoke anger and unprofessional behavior on the part of the officer. By using a "voice over" procedure, it was possible for the subjects to not only hear the dialogue between the student and the officer but to "hear" what the officer was saying to himself during this situation. In this manner, it was possible to illustrate both maladaptive negative self statements and more adaptive task-relevant statements which could lead to more appropriate behavior. Through group discussion, an attempt was made to illustrate how maladaptive and adaptive self statements can lead to quite different behavioral outcomes. It was emphasized that it is possible to modify maladaptive self statements and to learn to make those that are more adaptive in nature and thus minimize the effects of stress on performance.

As it was felt that the general notion of self statements having an effect on performance might be quite foreign to this group of individuals, self monitoring was introduced as a means of making participants more aware of the kinds of things they were likely to say to themselves under stress. It was emphasized that by monitoring ones feelings and thoughts under stressful

circumstances, one becomes aware of the self statements emitted and of their unique physical responses to stress. It was explained that awareness of these responses (physical and cognitive) may later serve as cues to appropriate coping behaviors. Subjects were then instructed in self monitoring procedures, and given a homework assignment requesting them to list stressful situations encountered during the remainder of the program. They were also asked to describe the nature of the self statements emitted, and the nature of their physical response to stress. At the end of the session, participants were given a handout dealing with self statements which illustrated how some are more adaptive than others. Also provided was a handout describing self monitoring procedures.

Session Three:

Session three began with a brief review of the material presented in the previous sessions with an emphasis on the role of self monitoring. Practice in monitoring physical and cognitive responses was accomplished through role playing. Participants role played an officer responding to a call resulting in an encounter with a very big and uncooperative individual with whom they had to deal. The purpose of this situation was to place the participants in a stressful situation, similar to that which might be encountered on the job. Following role playing, group discussion focused on the emotional reactions experienced and the self statements emitted during the role playing situation, their adaptive or maladaptive nature, and how these self statements may have related to performance.

The second half of this session was devoted to relaxation skills useful in coping with stressful situations. The nature of progressive relaxation training was presented and participants were instructed in the use of relaxation as an active coping skill. A portion of this session was then

devoted to training in muscle relaxation employing abbreviated procedures similar to those described by Paul (1966). Participants were given a handout which described the nature of progressive relaxation training. As a homework assignment they were asked to practice relaxation once per day during the remainder of the program. Emphasis was placed on the use of relaxation exercises to help police officers "unwind" after being involved in highly stressful situations.

Session Four:

After a review and discussion of the relaxation exercises (as well as answering the subjects' questions about its use), the group leader presented an overview of aspects of stress management considered basic to the present program. That is, emphasis was placed on the fact that successful coping requires monitoring one's behavior and using physiological and cognitive responses in stressful situations as cues relevant to adaptive coping behaviors. Again it was noted that coping with stressful situations involves (a) emitting adaptive rather than maladaptive self statements and (b) using relaxation to cope with the physiological response to stress.

Much of this session involved a discussion of anger provocation as a major source of stress for police officers and how stress management procedures could be used to deal with this stressor. In line with the procedures developed by Novaco (1977), an attempt was made to help participants understand factors which might contribute to anger provocation (i.e. the role of setting events, attitudes and expectancies, situational cues) and to develop a repertory of facilitative self statements applicable in preparing for anger provocation, confronting anger provoking situations, dealing with the resulting arousal, and in reflecting on the provocation sequence. Examples of these self statements as adapted from Novaco (1977) are presented in Table 1. Attention was also given to situations peculiar to police work which may result in anger

provocation and ways in which the procedures described above might be useful in coping with these situations.

Insert Table 1 about here

Sessions Five and Six:

The final two sessions were designed to provide participants with practice in using coping skills. Here trained actors provided realistic stress management problems for participants. Specifically, these situations included a suicidal woman, individuals involved in a landlord-tenant dispute, and two belligerent traffic violators. In preparation for each situation, the actor was instructed to behave in as difficult a manner as possible. The subjects worked in pairs in attempting to handle these situations and were encouraged to employ the coping skills acquired during the program in dealing with the situations. After role playing, an attempt was made to elicit participants' feelings with reference to the situation and to encourage discussion of how stress management skills were used, as well as difficulties encountered in their use. The other group members were encouraged to place themselves in the participant's shoes and imagine how they would use coping skills in dealing with the situation. All of the trainees participated in at least one of these situations and observed the others. Attention was also given to how procedures such as those employed in the role playing situations might be valuable in other stressful situations of the anxiety eliciting or anger provoking variety.

Session six ended with a general review of the program's elements, a discussion of questions concerning the use of stress management procedures, and encouragement to use these coping skills in stressful situations encountered on the job.

Dependent Measures

A variety of dependent measures were employed in an attempt to evaluate the effectiveness of the present program. Self-report measures included the State Trait Anxiety Inventory (Spielberger, Gorsuch and Lushene, 1970), the Test Anxiety Scale (Sarason, 1972), and a modified version of the Endler-Hunt S-R Inventory of Hostility (Endler and Hunt, 1968). These measures were obtained both prior to and after treatment. Physiological measures, pulse and blood pressure readings, were also obtained before and after treatment.

In addition to the measures described above, data concerning the performance of Academy trainees under conditions of stress was obtained at the end of the treatment program. As part of the regular Police Academy program, trainees toward the end of training, are required to take part in a number of "mock scene" exercises which simulate actual police activities. These scenes are quite realistic and are acknowledged by participants and observers to evoke considerable anxiety. Performance in these situations is graded by members of the Police Academy staff and serves as a basis for evaluating the trainees' fitness as police officers. As these mock scenes appeared to provide an excellent opportunity for the situational assessment of performance under stress, observer rating scales were developed so that raters could evaluate the trainees' performance along several dimensions relevant to the program's content. Briefly, evaluation involved ratings on a seven-point scale of (a) trainees' overall level of performance, (b) the extent to which anxiety seemed to get in the way of their dealing with the situation, (c) the extent to which anger seemed to affect performance, (d) the appropriateness of the amount of force used in the situation, (e) the extent to which approved police procedures was followed and (f) the rater's feelings of comfort or discomfort in having the trainee as his/her partner in confronting a real life situation such as the one enacted in the mock scene.

A self-rating scale was also devised by which trainees indicated their responses to the mock scenes. They were asked to rate on a seven point scale (a) the degree of anxiety experienced during the mock scene, (b) the extent to which they felt in control of their anxiety during the situation, (c) the degree to which they had difficulty controlling feelings of anger, (d) how well they felt they handled the scene and (e) the degree to which they became self-preoccupied while participating in the mock scene.

The nature of the mock scenes in which ratings were obtained are briefly described below.

Traffic stop. This scene took place on the street in traffic. Officers observed a violation of a traffic law, chased the violator, and dealt with him or her after the stop was made.

Field Interrogation. Trainees were required to interrogate a "suspicious looking" loiterer. As this person was being questioned, the "officer" received a call that a bar had just been robbed. The description of the robber matched the person being questioned. Based on this information, the trainees had to respond to the situation.

Felony stop. Two trainees received a call to watch for a beige car with a specific license plate number. Shortly thereafter, the car appeared. The trainees pursued the car (which contained supposed felons) until they were able to corner it. After the car entered an area where an exit could not be made, the task of the officers was to get the felons out of their car and into the squad car.

Conflict situation. In this scene, trainees received a call indicating that there was an argument going on at a gas station at a specific address. They arrived to find a woman claiming to have asked for \$1.00 worth of gas and to have received \$8.00 worth. She had only a total of \$1.50 with her.

As the trainees arrived, the two were yelling insults at each other. The trainees task was to handle the situation in a manner that was fair to both of the parties involved and in a professional manner.

Building search. Two trainees received a radio call to search a building for suspects who were thought to have committed a recent crime. Two persons hidden in the warehouse played the role of the suspects. The task of the recruits was to conduct a search and to apprehend the suspects (with backup help, if necessary) without being "shot" by the suspects.

It might be noted that while the general format of the mock scenes was similar to that indicated above, there was some variation from one trainee to another so that trainees could not pass on information concerning the exact nature of the scenes. Each trainee approached the scene without any specific knowledge regarding what might transpire. Observers rated participants during or immediately after the recruit had responded to the mock scene. Self-ratings were obtained immediately after each scene.

Results

Situational Assessment

The strongest support for the effectiveness of the present treatment program was found for observer ratings of subjects' mock scene performance. While several significant findings were obtained, it might be noted that differences between the treatment and control groups were especially strong for two of the mock scenes, those involving the traffic stop and field interrogation. Additionally, the finding of differences was largely restricted to ratings of overall level of performance, the extent to which appropriate police procedure was followed, and the degree to which raters would be comfortable having trainees as partners when dealing with real life situations similar to those portrayed in the mock scenes.

Regarding the ratings of overall level of performance on the Traffic Stop scene, highly significant differences were found with subjects in the stress management group receiving better ratings than those in the control condition, $F(1, 12) = 21.142, p < .001$. Mean ratings for subjects in these two conditions were 3.0 and 4.6 for treatment and control subjects respectively (low ratings indicate better performance).

Likewise, when subjects in the treatment and control groups were compared in terms of how comfortable observers would be in having the trainee as a partner in dealing with a traffic stop situation, treatment subjects received significantly higher ratings than did controls, $F(1, 13) = 8.23, p < .01$. Mean ratings for the treatment and control group were 5.5 and 4.1 respectively (high ratings indicate higher degree of comfort as partner).

Concerning performance in the Field Interrogation situation, there was a tendency for treatment subjects to receive better ratings in terms of overall level of performance, $F(1, 13) = 3.31, p = .09$. Highly significant differences were found with regard to following appropriate police procedures in the field interrogation situation with treatment subjects receiving higher ratings than control subjects $F(1, 13) = 9.55, p < .01$. Mean ratings of treatment and control subjects were 4.4 and 3.0 respectively.

Finally, regarding ratings as to how comfortable raters would be in having recruits as partners in a field interrogation situation, treatment subjects tended to receive higher ratings although these differences only approached significance ($p = .09$). These results would seem to suggest that in certain situations, similar to those encountered in actual police work, subjects given training in stress management perform in a superior manner to subjects not given such training.

Self-Report Measures

The self-report measures obtained in this study consisted of self-ratings of mock scene performance as well as pre and post treatment measures of anxiety and hostility. In general, few differences were obtained with regard to trainees self-ratings of mock scene performance. It was found, however, that when self-ratings of subjects participating in the building search mock scene were considered, treatment subjects reported having significantly more difficulty controlling their feelings of anger, $F(1, 14) = 4.9$, $p < .05$. Although not significant, findings in the same direction were obtained when self-ratings of performance were considered in the conflict situation ($p = .08$) and in the traffic stop situation ($p = .06$). This latter finding is particularly interesting as it suggests that treatment subjects tended to rate their own performance in the traffic stop situation as poorer than did controls, while observer ratings of these same individuals in the same situation suggested that subjects in the stress management group were actually quite superior to controls in terms of performance. Regarding other analyses of self ratings, building search control subjects tended to rate themselves as being less self preoccupied ($p = .06$). Finally, felony stop control subjects tended to rate themselves as being less anxious than did individuals in the stress management group ($p = .06$).

Analyses of covariance, using pretreatment measures as the covariate, were employed to assess relative changes in the treatment and control groups on the measures of anxiety and hostility. No differences were found with regard to either state or trait anxiety. Significant differences were found, however, when the test anxiety measure was considered. These findings suggested that, relative to controls, the treatment group displayed a significantly higher level of test anxiety as a function of treatment, $F(1, 10) = 5.21$, $p < .05$. Additionally,

an analysis of covariance employing scores on the Endler-Hunt S-R Inventory of Hostility suggested that, relative to controls, treatment subjects reported significantly higher levels of hostility at the end of the treatment program, $F(1, 12) = 6.73, p < .03$.

Physiological Measures

It was only possible to obtain pulse and blood pressure measures at two points in time (pre and post treatment). The original plan was to obtain resting measures before and after treatment, as a baseline, and to obtain these same measures immediately after participating in the mock scenes. This would have provided a reasonable measure of the degree to which the treatment and control groups differed in terms of physiological response to stress as indexed by these two variables. Unfortunately, due to time pressures and other difficulties, it was not possible to obtain measures under stress, thus making it impossible to assess subjects physiological response to situations of a stressful nature. Tests of significance suggested no difference between the groups when they were compared using pre-post measures of pulse and blood pressure in the resting state.

Discussion

Our results support the belief that it is possible to develop effective programs to enhance the performance of police officers under stressful conditions. Support for this conclusion is provided by the findings that in several mock scenes, in which the performance of trainees in simulated police activities was assessed, the performance of those receiving stress management training was rated as significantly superior to those who had not received such training. For example, treatment subjects in the Traffic Stop mock scene displayed a level of overall performance significantly higher than did the controls, and raters indicated that they would be significantly more comfortable with treatment

subjects as partners in a similar situation than with control subjects. Likewise, in the Field Interrogation mock scene, treatment subjects received significantly higher ratings in their ability to follow appropriate police procedure. There was also a tendency for subjects in the treatment condition to receive higher ratings on overall performance. Finally, in this mock scene, raters tended to indicate that they would be more comfortable with treatment subjects as partners in a situation similar to that role played in this scene. While no differences were found between treatment and control groups in terms of ratings on other variables, given the small sample size, these results suggest that the stress management was effective.

It is especially interesting to note that some of the largest effects were found with regard to subjects' performance in the Traffic Stop mock scene. The fact that a cognitive modeling scene depicting specific appropriate and inappropriate cognitions in a traffic stop situation was employed as part of the training program, along with the fact that much attention was given to appropriate ways of coping with this situation, provides some reason to suggest that stress management programs may be most effective when they focus on specific situations likely to be encountered by subjects. It may be that the effects of coping skills programs such as the one described here are quite specific and that to maximize their effects it is necessary to emphasize to a greater degree how the coping skills presented as part of the program may be applicable to a broad range of specific situations.

Although the findings related to observer ratings of performance suggest the value of the present program, self-reports of subjects would initially appear somewhat inconsistent with these results. For example, treatment subjects reported themselves to be more angry and test anxious and to have had greater difficulty in controlling feelings of anger in one of the mock

scenes than did control subjects. As noted earlier, one finding of particular interest was that when self-ratings of overall performance were considered in the Traffic Stop scene, there was a tendency for treatment subjects to rate themselves lower than did controls. Observer ratings, however, suggested that the overall performance of treatment subjects was much superior to that of individuals in the control condition. Two explanations for these results should be mentioned.

One explanation relates to a major focus of the program: to make subjects more aware of their physiological and cognitive responses to anxiety eliciting and anger provoking situations. It was felt that these responses might be later used as cues to engage in appropriate coping behaviors. The higher self-ratings of anger and anxiety in the treatment group subjects may simply reflect their increased awareness of their own responses to such situations. A second possibility relates to the reaction of some of the participants to the program. Some trainees involved in the program demonstrated a marked lack of interest and feelings of animosity toward the program in general. It was the impression of the group leaders that these individuals had difficulty seeing the value of this program, were suspicious of its intent, and felt that training in appropriate police procedure was all that was needed in order to be a good officer. It seemed to be the feeling among at least half of the participants that they would be able to deal with the stresses of the job and that special training for this was unnecessary. Their feelings were that the stress management program was something to be tolerated rather than something to benefit from. In spite of the fact that subjects in the treatment group appeared to benefit from the content of the program, as evidenced by the more objective behavioral ratings, their overall negative attitudes toward the program may have significantly influenced their responses to the self-report measures.

The discomfort some trainees felt toward the program we used provides some insights into how the stress management training of law enforcement officers might be strengthened. First, it is possible that such programs are especially appropriate for individuals already involved in police work. This seems reasonable because of the likelihood that police officers will be more personally aware than trainees of the stressors confronting them and their effects, and may enable the officers to attach more face validity to the stress management program. Second, coping skills programs may be more successfully implemented when used with volunteers who feel the need for such training rather than with trainees who are given the program as part of their regular academy program. Finally, it would seem absolutely essential that such a program have the backing of administrative personnel and that these persons actively communicate to trainees that learning to cope with stress is an important part of functioning effectively as law enforcement officers.

In general, it would seem that while the coping skills program described here did not have face validity for all trainees, its content was sufficient to bring about significant improvement in the performance of those who viewed it. While the results of this study suggest that a coping skills program can enhance the performance of individuals under stressful circumstances, it is not clear whether such programs are sufficient to minimize the long term effects of stress on police officers. Further studies of the effectiveness of such programs employing long term follow up evaluations are in order.

Reference Notes

1. Kroes, W. H. Psychological stress in Police work. Unpublished manuscript. National Institute for Occupational Safety and Health, 1974.
2. Smith, D. H. Domestic crisis intervention: A comparison of observational learning models with Police officers. Unpublished Doctoral Dissertation, University of Washington, 1973.

References

- Danish, S. J., and Brosky, S. L. Training of policemen in emotional control and awareness. American Psychologist, 1970, 25, 368-369.
- Endler, N. S., and Hunt, J. Mcv. S-R inventories of hostility and comparisons of the proportions of variance from persons, responses, and situations for hostility and anxiousness. Journal of Personality and Social Psychology, 1968, 9, 309-315.
- Jacobi, J. H. Reducing police stress: A psychiatrist's point of view. In W. H. Kroes and J. J. Hurrell (Eds.). Job Stress and the Police Officer: Identifying Stress Reduction Techniques. U. S. Department of Health, Education, and Welfare, 1975.
- Kroes, W. H., and Hurrell, J. J. Job Stress and the Police Officer: Identifying Stress Reduction Techniques. U. S. Department of Health, Education and Welfare, 1975.
- Lazarus, R. S. Emotions and adaptation: Conceptual and empirical relations. In W. J. Arnold (Ed.). Nebraska Symposium on Motivation. Lincoln, University of Nebraska Press, 1968.
- Meichenbaum, D. H. Cognitive factors in behavior modification: Modifying what clients say to themselves. In C. M. Franks and G. T. Wilson (Eds.). Annual Review of Behavior Therapy Theory and Practice, New York: Brunner/Mazel, 1973, pp. 416-431.
- Meichenbaum, D. H. A self instructional approach to stress management: A proposal for stress inoculation training. In C. D. Spielberger and I. G. Sarason (Eds.). Stress and Anxiety, Vol. 1, New York: Halsted Press, 1975, pp. 237-259

- Novaco, R. W. A stress inoculation approach to anger management in the training of law enforcement officers. American Journal of Community Psychology, 1977, 5, 327-346.
- Richard, W. C., and Fell, R. D. Health factors in police job stress. In W. H. Kroes and J. J. Hurrell (Eds.). Job Stress and the Police Officer: Identifying Stress Reduction Techniques. U. S. Department of Health, Education, and Welfare, 1975.
- Sarason, I. G. Experimental approaches to test anxiety: Attention and the use of information. In C. D. Spielberger (Ed.). Anxiety: Current Trends in Theory and Research. Vol. 2. New York, Academic Press, 1972.
- Sarason, I. G. Anxiety and self-preoccupation. In I. G. Sarason and C. D. Spielberger (Eds.). Stress and Anxiety, Vol. 2. New York: Halsted Press, 1975, pp. 27-44.
- Spielberger, C. D., Gorsuch, R. L., and Lushene, R. E. Manual for the State-Trait Anxiety Inventory. Palo Alto, Calif.: Consulting Psychologist Press, 1970.
- Zacker, J. Understanding one's clients: An attempt to improve sensitivity and morale in police recruits. Psychological Reports, 1972, 31, 999-1008.
- Zacker, J. and Bard, M. Effects of conflict management training and police performance. Journal of Applied Psychology, 1973, 58, 202-208.

Footnotes

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Table 1

 Self Statements in Anger-Arousing Situations

Preparing for provocation

This could be a rough situation, but I know how to deal with it.

I can work out a plan to handle this. Easy does it.

Remember stick to the issues and don't take it personally.

There won't be any need for an argument. I know what to do.

Meeting the stressor

As long as I keep my cool, I'm in control of the situation.

You don't need to prove yourself. Don't make more out of this than you have to.

There is no point in getting mad. Think of what you have to do.

Look for the positives and don't jump to conclusions.

Coping with arousal

Muscles are getting tight. Relax and slow things down.

Time to take a deep breath. Let's take the issue point by point.

My anger is a signal of what I need to do. Time for problem solving.

He probably wants me to get angry, but I'm going to deal with it constructively.

Releasing the tension

A. Conflict unresolved

Forget about the aggravation. Thinking about it only makes you upset.

Try to shake it off. Don't let it interfere with your job.

Remember relaxation. It's a lot better than anger.

Don't take it personally. It's probably not so serious.

B. Conflict resolved

I handled that one pretty well. That's doing a good job!

I could have gotten more upset than it was worth.

My pride can get me into trouble, but I'm doing better at this all the time.

I actually got through that without getting angry.

 From Novaco (1977).